

# SAUMO PAL | 15EC3FP03

## ELECTRONICS AND ELECTRICAL COMMUNICATION ENGG./FINANCIAL ENGINEERING

CDUICATION



EDUCATION			
Year	Degree/Exam	Institute	CGPA/Marks
2020	M.TECH Dual Degree 5Y	IIT Kharagpur	8.44 / 10
2015	Central Board of Secondary Education	D.A.V. Model School, Durgapur	96.4%
2013	Indian Council of Secondary Education	St. Xavier's School, Durgapur	94.2%

#### **INTERNSHIPS AND PROJECTS**

Enhancing application testing with AI

The Honeynet Project under Google Summer of Code

April, 2018 - Ongoing

- Responsible for enhancing coverage of Android application testing bot using machine learning and AI techniques
- •Implemented natural language processing and deep learning methods along with graph convolutional networks for creating embeddings of UI screens of applications

Virtualization of Head Unit

Mercedes Benz Research & Development, India

May, 2018 - July, 2018

- •Responsible for enabling virtualization toolkit in remote target devices which includes NVIDIA Drive CX2 and Harman NTG6 to host them on TCP/IP protocol
- Implemented Yocto based operating system package installer on Linux kernel and added VirtualGL and TurboVNC

Algorithmic Toolkit for Elections

**AOSSIE under Google Summer of Code** 

April, 2017 - August, 2017

- Responsible for implementing various voting algorithms in Scala and Play framework
- •Made it available to everyone in an open sourced manner so that it can be tested by the Government of Australia

#### COMPETITION/CONFERENCE

Special Prize for Technical Innovative Approach

Hack.Bangalore, Daimler

January, 2018

- •Implemented vehicle-to-vehicle communication module for retro-fitting in old vehicles so that all the vehicles on road can communicate without the need of internet
- •Responsible for the software stack consisting of the Android application which can communicate with hardware module and a Flask based web application for data collection

Finalist Future Datathon, Future Group

December, 2017

• Ranked 6th all over India in a data analytics competition held by Future Group, the ones behind the offline commerce behemoth, Big Bazaar by implementing clustering and recommendation based algorithms to help determine the types of customers visiting Big Bazaar and accordingly suggest products to them

National Finalists Hult Prize India Finals January, 2017

- •Ideation and major work was done on 'Restoring the rights and dignity of 10 million refugees by 2022'
- Worked on alleviating the lack of affordable education, in the form of a solar-powered bag with a barebones PC

Category Winners Accenture Innovation Jockeys October, 2016

• Deployed a machine learning model on the web, using IBM Bluemix as the platform

Trained the model to learn reported cases of corruption and suggest relevant laws/actions to end users

#### **SKILLS AND EXPERTISE**

**Proficient**: C, C++, Python, R, Ubuntu, Tensorflow, PyTorch, Keras **Intermediate**: SciPy, Scikit-learn, Matlab, MySQL, Android, Yocto

### POSITIONS OF RESPONSIBILITY

Organizing Member TEDx IIT Kharagpur April, 2016 - March, 2017

• Responsible for organizing the 5th edition of TEDx, an independently organized TED event at IIT Kharagpur

Student Member Technology Transfer Group, IIT Kharagpur April, 2016 - April, 2017

• Worked for identifying potential patentable invention by collaborating with individuals and professors and helped them in the patent filing and commercialization

### **EXTRA CURRICULAR ACTIVITIES**

- Captain of Bronze winning team in Technology Quiz, Interhall General Championship 2017-18
- Captain of Gold winning team in Product Design, Interhall General Championship 2017-18
- Finalist in Debasish Dash Memorial IT Quiz at Bhubaneshwar, 2017
- Active Member of Kharagpur Data Analytics Group and The Street, Finance Club of IIT Kharagpur

### COURSEWORK INFORMATION

Multivariate Calculus, Programming and Data Structures, Introduction to Electronics, Corporate Finance, Signals and Systems, Probability and Stochastic Processes, Regression Modelling, Digital Signal Processing, Stochastic Processes in Finance\*, Digital Image Processing\*, Machine Intelligence and Expert Systems\*, Information Retrieval\*